

Claims

- [c1] 1. A scanning chassis, suited for scanning a document, comprising:
a case having a light transparent slot shaped like a bar form, wherein the widths corresponding to the points along the longitudinal direction of the light transparent slot are not all the same;
a light source illuminating the document, and an image generated at the place where the document is illuminated by the light source;
at least one reflector on which the image can be projected through the light transparent slot;
a lens assembly on which the image can be projected by the reflector's reflecting the image; and
an optical sensor on which the image can be projected after the image passes through the lens assembly.
- [c2] 2. The scanning chassis according to claim 1, wherein the widths corresponding to the points at the two sides of the light transparent slot are larger than the width corresponding to the point at the middle region of the light transparent slot.
- [c3] 3. The scanning chassis according to claim 2, wherein the width corresponding to the point at the middle region is determined by the width of the light cone of the image and the allowable error of the reflected angles of the reflectors.
- [c4] 4. The scanning chassis according to claim 2, wherein the widths corresponding to the points at the two sides are determined by the width of the light cone of the image, the allowable error of the reflected angles of the reflectors and the allowable error of inclining the optical sensor.
- [c5] 5. The scanning chassis according to claim 1, wherein the light transparent slot is shaped like dual trumpets.
- [c6] 6. The scanning chassis according to claim 1, wherein the optical sensor is a charge coupled device.
- [c7] 7. The scanning chassis according to claim 1, wherein the optical sensor is a CMOS image sensor.

- [c8] 8. The scanning chassis according to claim 1, wherein the light source is a fluorescent lamp.
- [c9] 9. The scanning chassis according to claim 1, wherein the light transparent slot is formed while the case is fabricated by injection molding.
- [c10] 10. A light transparent slot of a scanning chassis, an image of a document projected on a optical sensor through the light transparent slot of the scanning chassis, and the light transparent slot shaped like a bar form, wherein the widths corresponding to the points along the longitudinal direction of the light transparent slot are not all the same.
- [c11] 11. The light transparent slot of the scanning chassis according to claim 10, wherein the widths corresponding to the points at the two sides of the light transparent slot are lager than the width corresponding to the point at the middle region of the light transparent slot.
- [c12] 12. The light transparent slot of the scanning chassis according to claim 11, wherein the width corresponding to the point at the middle region is determined by the width of the light cone of the image and the allowable error of the reflected angles of the reflectors.
- [c13] 13. The light transparent slot of the scanning chassis according to claim 11, wherein the widths corresponding to the points at the two sides are determined by the width of the light cone of the image, the allowable error of the reflected angles of the reflectors and the allowable error of inclining the optical sensor.
- [c14] 14. The light transparent slot of the scanning chassis according to claim 10, wherein the light transparent slot is shaped like dual trumpets.
- [c15] 15. The light transparent slot of the scanning chassis according to claim 10, wherein the optical sensor is a charge coupled device.
- [c16] 16. The light transparent slot of the scanning chassis according to claim 10, wherein the optical sensor is a CMOS image sensor.